

Trial 32. Evaluation of foliar fungicides for controlling foliar soybean diseases in Oakes, ND (Irrigated) - 2025SOYBEAN (*Glycine max* 'XO 1095E')

H. R. Becton, G. Dusek and R. W. Webster

The soybean variety XO 1095E was planted in Oakes, North Dakota, on May 6, 2025, at a rate of 140,000 seeds/a and depth of 1.5 inches in bedded single rows spaced 30 inches apart. Plots were four rows by 20 feet. Treatments were replicated four times and designed in a randomized complete block. Blocks were separated by 5-foot alleys. The field was irrigated and grown to flax the previous year. Soil type was an Embden fine sandy loam with a 0%-2% slope. Standard practices were used to manage weeds and nutrition. Fungicides were applied at 20 gal/A at 40 psi using four XR TeeJet 8002VS flat-fan nozzles spaced at 20 inches apart. Mixing compatibility issues and phytotoxicity were not observed during the trial. Foliar incidence and severity ratings were taken on July 24, 2025, and Aug. 13, 2025. White mold incidence and severity was rated on Sept. 3, 2025. Yield was collected from the center two rows on Oct. 4, 2025. Rainfall during the period totaled 17.2 inches, and overall, weather conditions were conducive to disease development. Analysis was conducted using SAS 9.4 PROC GLIMMIX to determine the effects of treatments on disease and yield. Means separations followed Fisher's Protected LSD at $\alpha=0.05$.

No significant differences were observed between treatments with respect to incidence of frogeye leaf spot, *Cercospora* leaf blight or white mold. Overall, disease pressure was low throughout the trial. Additionally, there were no differences in yield.

Table 32. Effect of foliar fungicides on frogeye leaf spot, Cercospora leaf blight and Septoria brown spot incidence and yield.

Treatment and amount/A	Rate	Timing ^a	Mean disease incidence (%) ^b			Yield (bu/a)
			Frogeye leaf spot	Cercospora leaf blight	White mold	
Non-Treated	-	-	0.5	0.0	2.0	74.5
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.0	0.1	0.6	78.7
Adastrio	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.1	0.0	1.4	78.9
Badge SC	1.5 pt/a	R3				
NIS	0.25% v/v	R3	0.0	0.0	0.6	79.1
Affiance	14 fl oz/a	R3				
NIS	0.25% v/v	R3	0.0	0.1	0.9	77.6
Quilt	12 fl oz/a	R3				
NIS	0.25% v/v	R3	0.1	0.1	0.7	77.2
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	0.0	0.1	0.9	82.5
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3				
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	0.0	0.0	0.8	76.7
Quilt	12 fl oz/a	R5				
NIS	0.25% v/v	R5	0.0	0.1	1.5	78.3
Viatude	16 fl oz/a	R3				
NIS	0.25% v/v	R3	0.3	0.1	0.4	79.6
P-Value	-	-	0.10	0.68	0.32	0.93

^a Growth stage or timing at which the fungicide application was applied.

^b These incidence ratings for FLS and CLB were recorded on Aug. 13, 2025, and the mean disease incidence for WM was recorded on Sept. 3, 2025.